IN THE SPECIFICATION:

Page 1, after the title, insert the following topic headings.

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

Page 1, line 8, insert the following topic heading.

THE PRIOR ART

Page 2, lines 11 to 23, replace the paragraphs with the following amended paragraphs.

SUMMARY OF THE INVENTION

This object is accomplished by ~~the~~ a method ~~exercised in accordance with the characterising part of claim 1~~wherein air temperature and the actual amount of ice in the precipitation are measured and combined to determine the risk of ice deposition. As it is, a determination of the type of precipitation or the equivalent amount of liquid cannot be taken to express how much ice will be formed, since - by the known methods - it is not possible to distinguish between super-cooled water and ordinary water. This uncertainty is the greatest precisely within the temperature range where the risk of icing is the largest, viz around 0°C.

By combining the measurements in accordance with the ~~characterising part of claim 1~~ invention, a complete and objective measurement is accomplished of the conditions that are significant to the estimation of the

risk of ice formation when anti-icing liquid is used. The combination and its significance are explained in further detail in the context of Figures 2 and 3.

Page 3, lines 1 to 3, replace the paragraph with the following amended paragraph.

In accordance with a preferred embodiment the actual content of ice in the precipitation is determined by means of a measurement of the actual ice formation, e.g., by means of the technique taught in WO 00/54078~~, see claim 6~~.

Page 3, lines 12 to 21, replace the paragraphs with the following amended paragraphs.

By the apparatus taught in WO 00/54078, a number of surface elements are rotated at a rate that is to ensure, on the one hand, that the ice is deposited and, on the other, that the majority of water drops are flung off. By exercising the method ~~as recited in claim 10~~, it is ensured that the slow rotation does not reduce the actual ice formation, and the high rate of rotation ensures that no water remains on the rotor before the amount of ice deposited is weighed. The amount of ice can also be determined in other ways than weighing.

Moreover, it is expedient to perform further measurements~~, eg of the kind featured in claims 11 through 14~~.

Page 4, lines 1 to 8, replace the paragraph with the following amended paragraph.

However, it often applies - in particular within the field of air traffic - that a rather conservative approach is employed which will undoubtedly involve that some time will elapse before the pilots get used to having access to a well-defined holdover time. Undoubtedly, the well-known tables will be consulted for some time yet, of which one of the elements of insecurity was to determine the type of precipitation. By exercising the invention ~~as taught in claim 17~~, the objective determination that results from the invention can be used to give a reliable indication of the actual composition of the precipitation.

Page 4, lines 15 to page 5, lines 27, replace the paragraphs with the following amended paragraphs.

Safety being, of course, the top priority; there remains also the aspect that the anti-icing liquid is expensive and that it is waste of money and associated with unnecessary pollution to apply more anti-icing liquid than needed to obtain safe flying. By exercising the invention ~~as recited in claim 15~~ it is possible to determine the smallest requisite concentration of the anti-icing liquid to be applied to accomplish a desired holdover time.

A part from the above advantages, the invention provides options that present completely new perspectives. By combining measurement equipment for determining the amount of precipitation and combinations

with measurement equipment for measuring the amount of ice actually deposited, it is now an option to make a self-learning expert system ~~as recited in claim 19~~. According to the invention a holdover time is accomplished that is far more reliable than the one used so far, based on measurements, though, of actual weather conditions that applied five or ten minutes ago at most. The known tables are based on empirical conditions that can be registered in a calculation mode with some parameters being automatically adjustable by comparison of the calculated deposited amount of ice of the calculation model to the amount of ice actually measured. Thereby, the risk of ice can be duly predicted. By connecting computers in various airports to each other, and by inputting meteorological data the model can be expanded to provide, based on meteorological data, an estimate of the risk of ice at other airports, and this estimate can be compared to the currently measured ice accumulation at these airports, following which a calculation model can be dynamically optimised.

The invention also relates to an apparatus for exercising the method ~~according to claim 1. The apparatus is characterised by the configuration recited in claim 21~~.

Preferably the apparatus also contains a data storage with empirical information on holdover time so as to provide a considerably more reliable determination of the actual holdover time~~, see claim 22~~.

The apparatus may also feature a computer with a mathematical model for estimating e.g., holdover time, wherein the model comprises a number of adjustable parameters. By comparing the estimated results to the ones actually measured~~, as recited in claim 23~~, the parameters can be adjusted, whereby a self-learning expert model can be accomplished.

~~The invention also relates to an arrangement as taught in claim 24.~~

The invention will now be explained in further detail by the description that follows, reference being made to the ~~drawing, wherein~~drawings.

BRIEF DESCRIPTION OF THE PREFERRED EMBODIMENTS

Page 5, line 30, replace the figure description with the following amended description.

Figure 2 shows a further known table as used [[~~ia~~]] in Europe;

Page 6, line 20, insert the following topic heading.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT